

## We claim:

1. A package, comprising:

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a sleeve including at least one end defining an opening, the sleeve including at least one locking tab extending therefrom, the locking tab including a locking edge, the locking tab being folded inwards into the opening; and

- a rigid end cap including a substantially continuous outer surface that is dimensioned to fit closely within the opening, the end cap further including a rim overhanging the outer surface such that, when the end cap is inserted into the opening, the rim engages the sleeve end and prevents the end cap from being inserted further into the opening, the outer surface including at least one channel for receiving the locking tab, the channel having a ledge that engages the locking edge of the locking tab to prevent the end cap from being removed from the sleeve opening, wherein the channel is shaped such that the end cap is releasable by twisting the end cap relative to the sleeve.
- 20 2. The package of claim 1, wherein the end cap includes a cavity shaped to receive an end of a product to be packaged.
  - 3. The package of claim 2, wherein the end cap includes support ribs extending radially from the cavity to an interior wall of the end cap.

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- 4. The package of claim 2, further including a second cavity shaped to receive a second end of a product to be packaged.
- 5. The package of claim 4, wherein the end cap includes support ribs extending radially from each cavity to an interior wall of the end cap.
  - 6. The package of claim 5, wherein the end cap includes a support rib extending across the end cap, between the two cavities.





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- 7. The package of claim 1, wherein the channel is shaped such that the end cap is releasable by twisting the end cap relative to the sleeve.
- 5 8. The package of claim 7, wherein each of the locking tabs is trapezoidal and has an acute vertex that rides up a side edge of the channel when the end cap is twisted relative to the sleeve, such that the end cap is released from the sleeve.
- 9. The package of claim 8, wherein the channel has at least one ramped side edge, such that when the end cap is twisted relative to the sleeve, the locking tab rides up the ramped side edge, such that the end cap is released from the sleeve.
  - 10. The package of claim 1, wherein the sleeve includes a second end defining a second opening, and wherein the package further comprises:

a second locking tab extending from the second end and folded inward into the second opening, the second locking tab having a locking edge.

to fit closely within the second opening, the second end cap including a rim overhanging the outer surface such that, when the second end cap is inserted into the second opening, the rim engages the second sleeve end and prevents the second end cap from being inserted further into the second opening, the second end cap including a channel for receiving the second locking tab, the channel having a ledge that engages the locking edge of the second locking tab to prevent the second end cap from being removed from the second sleeve opening.

## 11. An end cap, comprising:

- a substantially continuous outer surface that is dimensioned to fit closely within an opening in a sleeve end;
  - a rim overhanging the outer surface such that, when the end cap is inserted into the opening, the rim engages the sleeve end and prevents the end cap from being





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inserted further into the opening, the outer surface including at least one channel for receiving a locking tab extending from the sleeve, the channel having a ledge that engages the locking edge of the locking tab to prevent the end cap from being removed from the sleeve opening, wherein the channel is shaped such that the end cap is releasable by twisting the end cap relative to the sleeve.

- 12. The end cap of claim 11, further including a cavity shaped to receive an end of a product to be packaged.
- 13. The end cap of claim 12, further including support ribs extending radially from the cavity to an interior wall of the end cap.
- 14. The end cap of claim 12, further including a second cavity shaped to receive a second end of a product to be packaged.
  - 15. The end cap of claim 14, further including support ribs extending radially from each cavity to an interior wall of the end cap.
- 20 16. The end cap of claim 15, further including a support rib extending across the end cap, between the two cavities.
  - 17. The end cap of claim 11, wherein the channel is shaped such that the end cap is releasable by twisting the end cap relative to the sleeve.
  - 18. The package of claim 7, wherein the channel has at least one ramped side edge, such that when the end cap is twisted relative to the sleeve, the locking tab rides up the ramped side edge, such that the end cap is released from the sleeve.
- 30 19. A method for fabricating a package, comprising:
  - (a) cutting and scoring a sleeve blank to create first and second panels, a glue flap extending from the first panel, and locking tabs extending from each of the panels;





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- (b) folding the second panel over the first panel;
- (c) folding the glue flap and affixing it to the second panel, the first and second panels forming a sleeve;
  - (d) folding the locking tabs inward into the sleeve;
- (e) inserting a rigid end cap into a first end of the sleeve, the end cap including at least one channel having a ledge that engages a locking edge of each locking tab extending from the first end of the sleeve;
  - (f) loading a product into the sleeve;
- 10 (g) inserting a second rigid end cap into a second end of sleeve, the second end cap including at least one channel having a ledge that engages a locking edge of each locking tab extending from the second end of the sleeve.